

Franconia 24497

Lafayette Brook Bridge

Cultural Resource Meeting #2

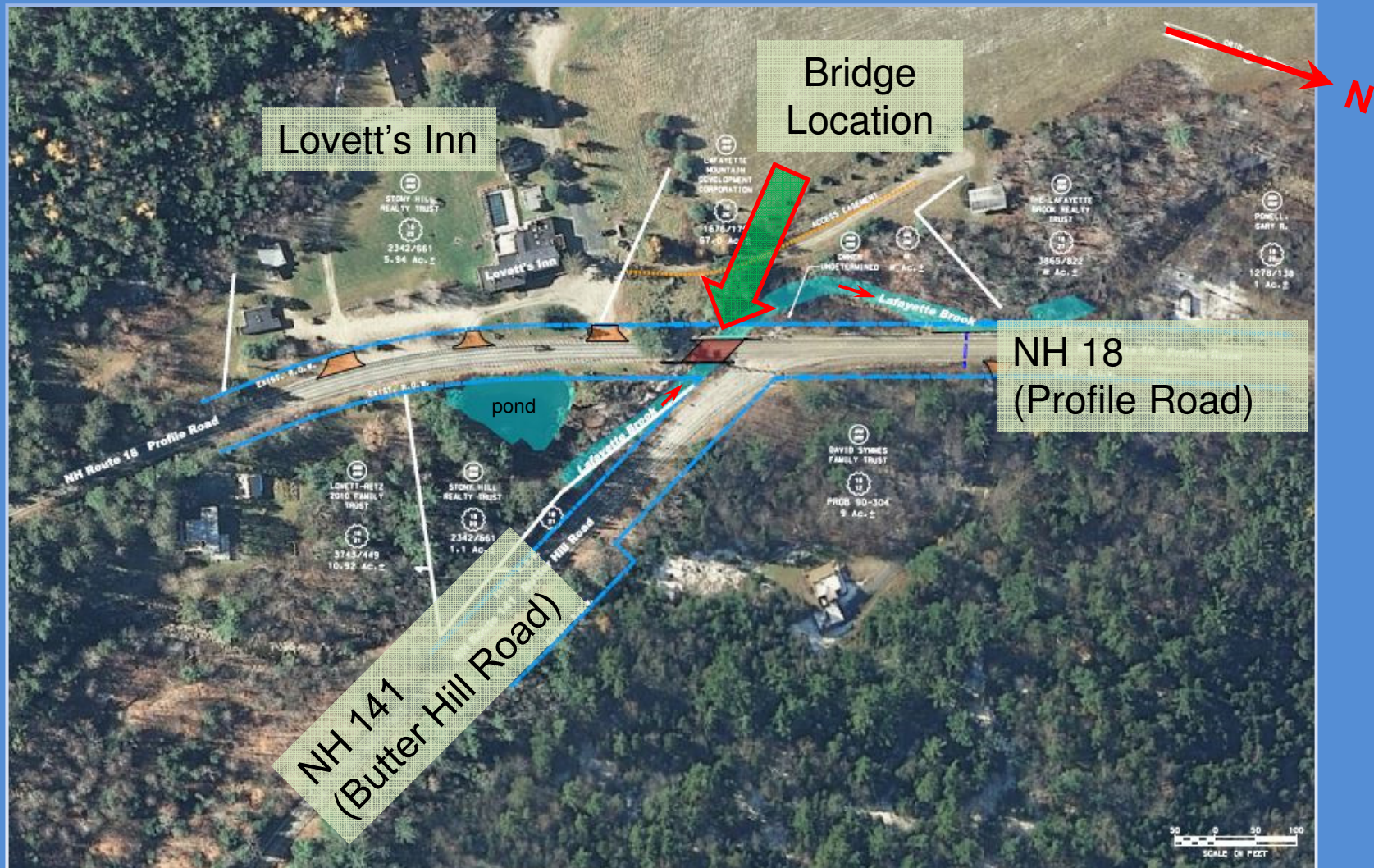


NH 18 over Lafayette Brook
June 11, 2015

Project Development Timeline

- August 14, 2014 – Public Officials & Public Informational Meeting
- October 9, 2014 – Cultural Resource Meeting at NHDOT
- March 19, 2015 – Type-Span-Location Report Complete
- April 29, 2015 – Second Public Officials & Public Meeting
- **June 11, 2015 – Second Cultural Resource Meeting at NHDOT**

Project Location



Site Photos



Upstream Elevation

Site Photos



Lovett's Inn



South Approach and Adjacent Pond



View of Bridge from the Inn

Site Photos



Upstream Looking North
NH 141 (Butter Hill Road) in Background

Site Photos



Looking South from
Intersection with
NH 141 (Butter Hill Road)



Downstream Elevation
Looking North

About the Bridge

- Concrete T-Beam Bridge Built in 1932
- Eligible for National Register of Historic Places (NHDHR Letter 9/22/14)
- 52 foot Single Span over Lafayette Brook
- Bridge Width is 24 feet Between Curbs (Approach Roadway Similar)
- Bridge is on State's Red List (since 2010)
- 2014 Bridge Priority Number #78
- Carries Approximately 640 Vehicles per Day

Public Meetings

Presented Results of Recent Bridge Inspections



Upstream Exterior T-Beam Cracks and Leaking

Public Meetings

- Explained that the existing bridge superstructure had reached the end of its service life and must be replaced, however ...



Downstream Exterior T-Beam
Spalling and Leaking



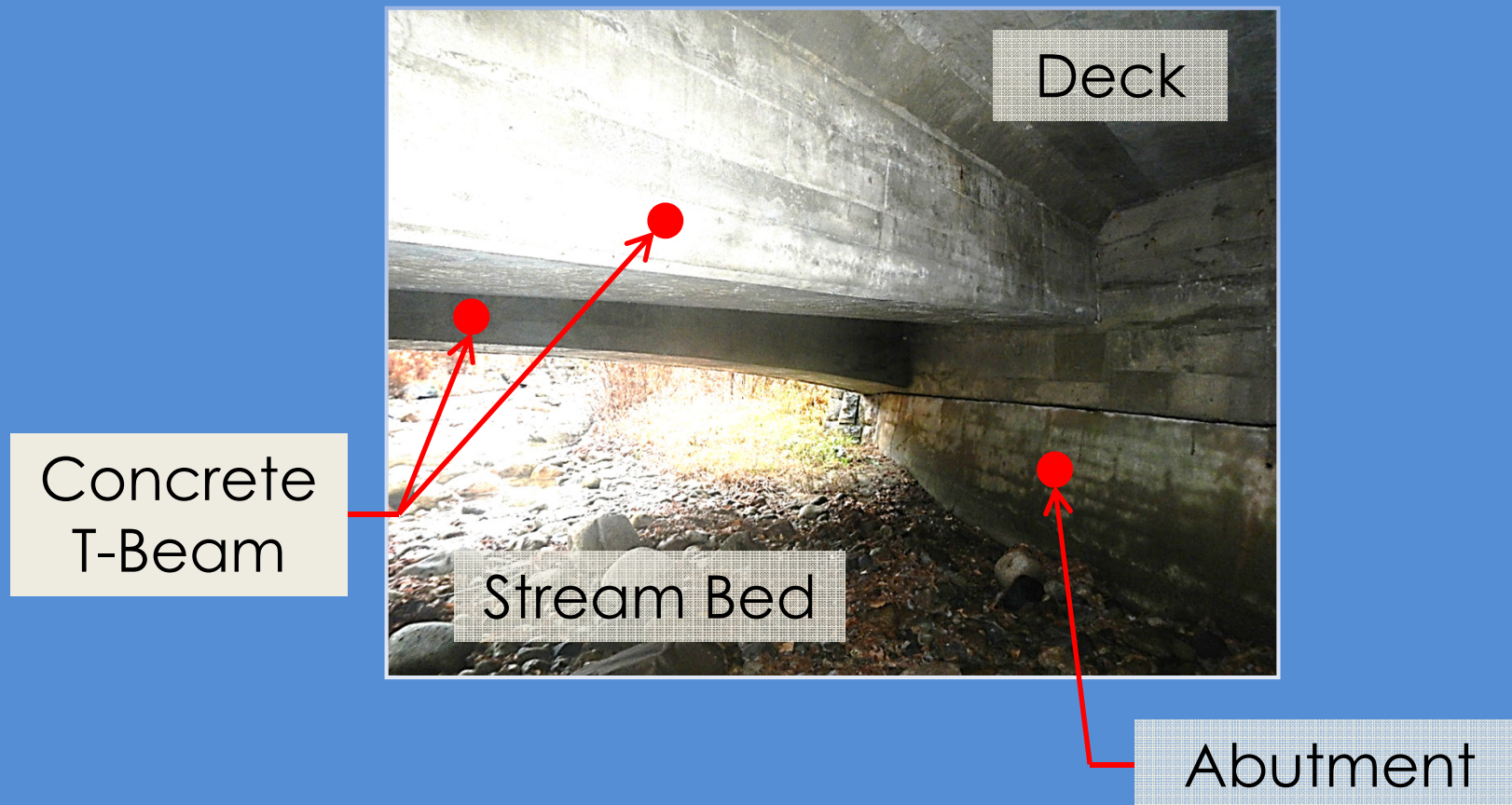
Poor Quality Concrete Cores



Intact Core

Public Meetings

- The abutments and wingwalls were in good condition and could be rehabilitated



Public Meetings

Discussed Other Project Considerations Such As
Bridge Width and Railing, and...



24 foot Wide Roadway – Between Curbs
Substandard Bridge Railing, No Approach Railing

Public Meetings

Intersection Sightlines



Looking South from Intersection
with NH 141 (Butter Hill Road)

Public Meetings

Received Public Input

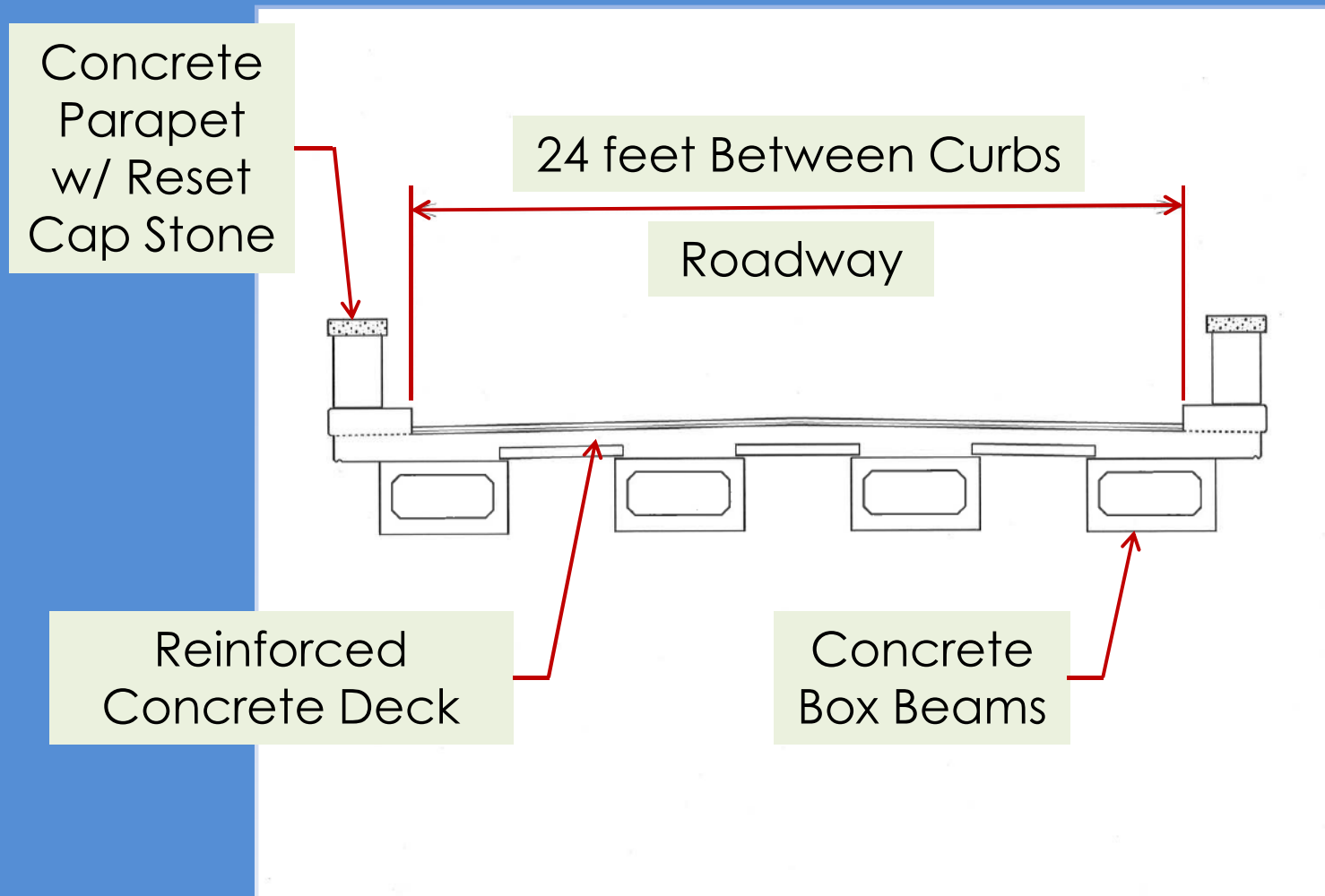
- Maintain the aesthetic appearance of the bridge. Especially concerned about the proposed bridge railing
- Received input regarding intersection with NH 141 (Butter Hill Road)
- The bridge width of 24 feet was not seen as a concern
- Construction duration and closure – prefer April and May to minimize impacts to local businesses

Alternatives Evaluated for Addressing the Deficient Bridge

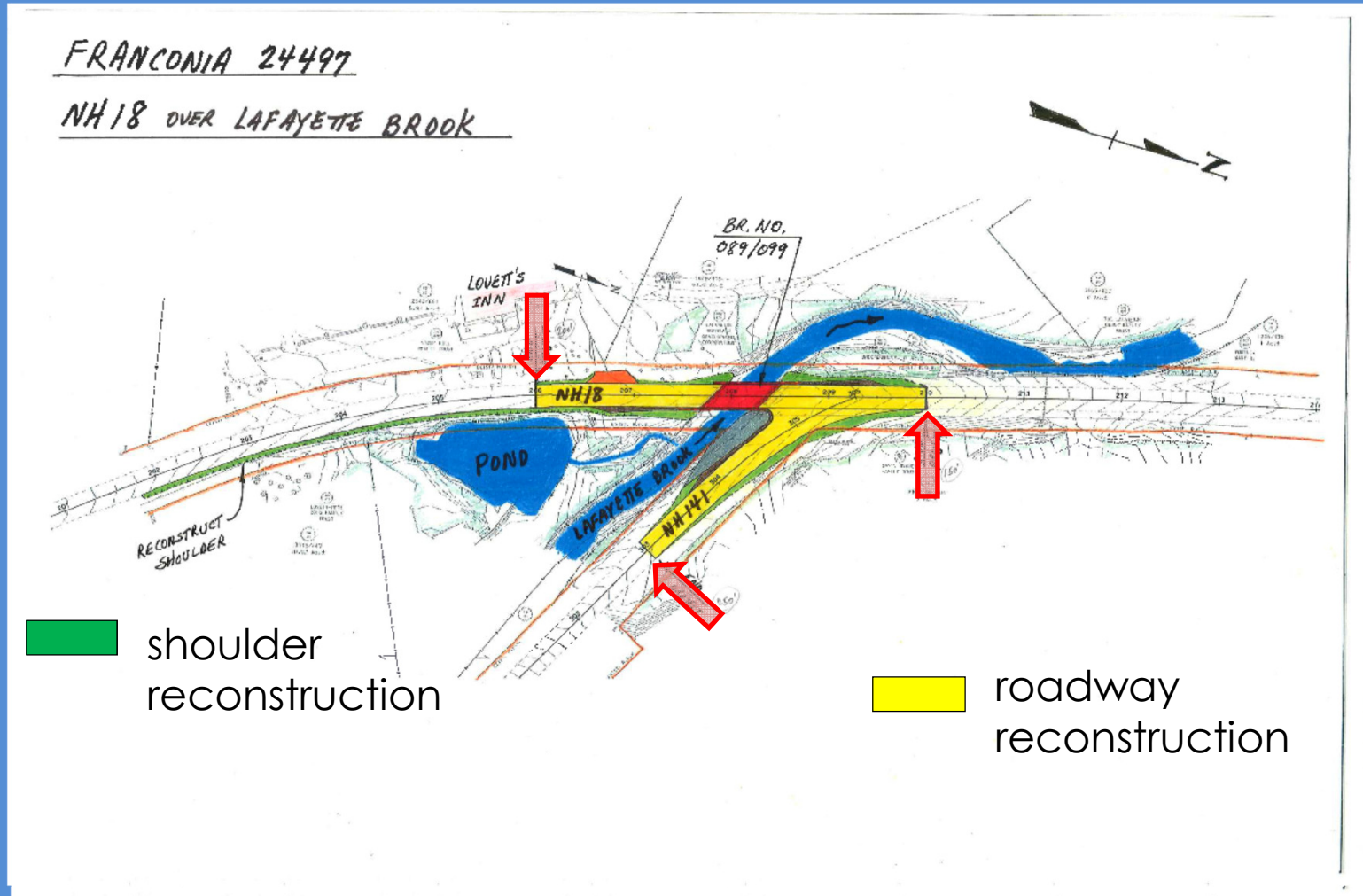
Evaluated the Following Alternatives:

- Bridge Rehabilitation
- Bridge Rehabilitation & Widening
- Complete Bridge Replacement

Preliminary Details - Preferred Alternative



Preferred Alternative

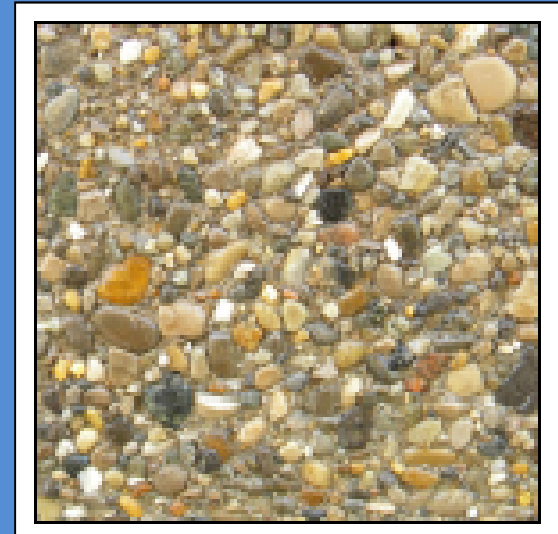


Site Plan - Approximate Project Limits

Preliminary Details - Preferred Alternative

Bridge Railing:

- Provide a concrete parapet railing with architectural treatment on faces – consider exposed aggregate finish
- Salvage existing cap-stones and reset on the new parapet railing
- Retain existing stone-faced pilasters



Sample Exposed
Aggregate Finish

Existing Bridge – Stone Parapet Rail



NH 18 Looking North

Rendering of Preferred Alternative



NH 18 Looking North

Bridge Approach Rail

Typical Examples



Transition to Barrier
or Parapet

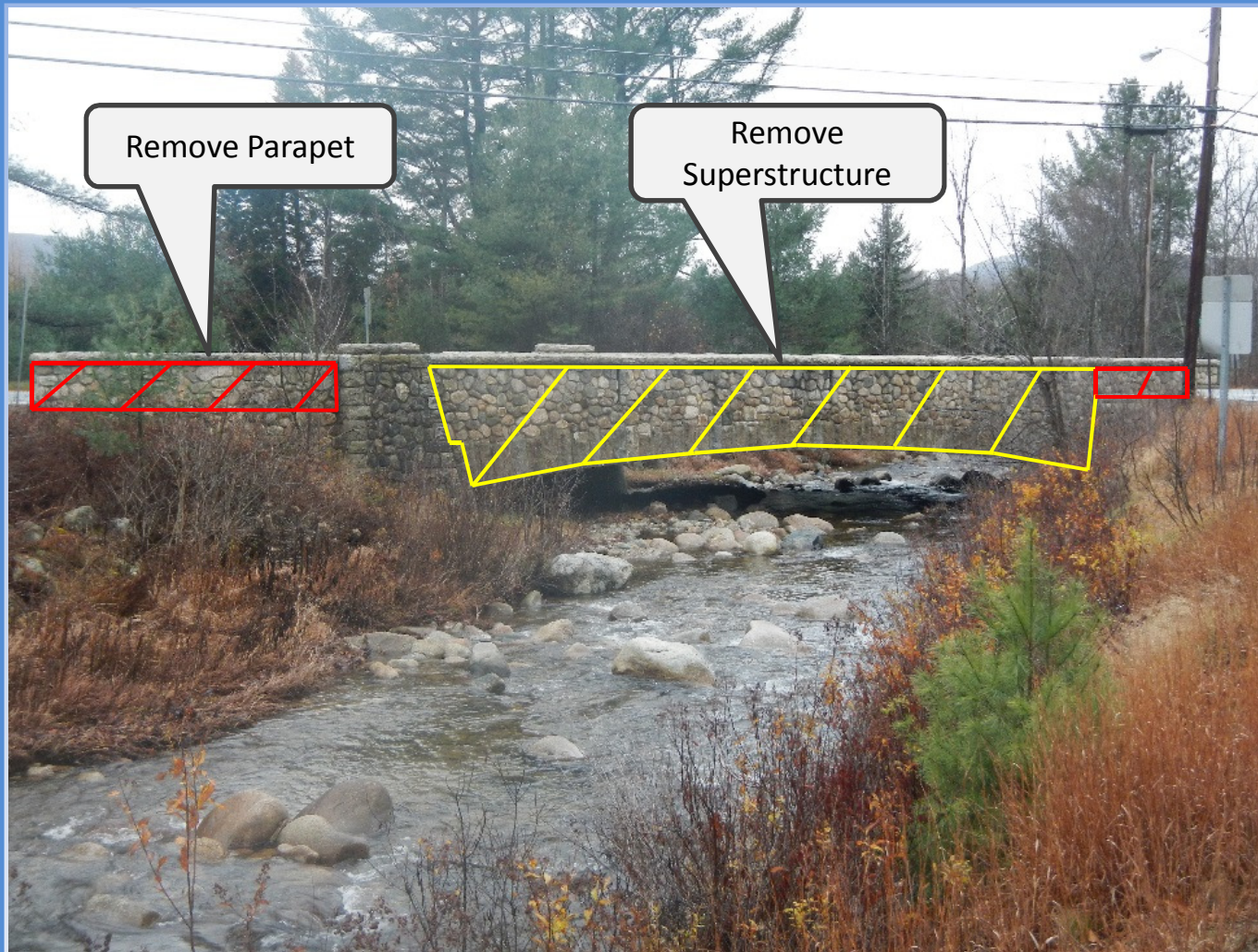


Energy Absorbing End Unit

Existing Bridge - Elevation



Proposed - Removal



Upstream Elevation

Rendering of Preferred Alternative



Upstream Elevation

Rendering of Preferred Alternative



Downstream Elevation

Stained Concrete Form-liner SAMPLE



Stained Concrete Form-liner SAMPLE

